portability to be fully operational in the largest 100 MSAs by December 31, 1998, would allow a reasonable amount of time to install the appropriate generic and application software in the relevant switches.[248] Moreover, such a phased deployment is preferable to implementing nationwide number portability simultaneously in all markets (or implementing this service in multiple large MSAs at the same time) because a phased deployment would be less likely to impose a significant burden on those carriers serving multiple regions of the country.[249] Specifically, our phased approach spreads the implementation over 15 months, thus easing the burden on carriers serving multiple regions by limiting the number of MSAs in which implementation is required during a particular calendar quarter. In addition, the burden on such carriers should be less than that upon carriers in smaller markets because the latter may be required to undertake hardware upgrades whereas larger carriers may already have upgraded their switches. Our phased approach would also avoid the potential strain on vendors caused by implementation in all the largest 100 MSAs on or around a single date, as well as help to safeguard the integrity of the public switched telephone network.

82. In addition, we believe that our phased implementation of long-term number portability is in the public interest and supported by the record. Our phased deployment schedule takes in account the differing levels of local exchange competition that are likely to emerge in the different geographic areas throughout the country. Thus, our deployment schedule is designed to ensure that number portability will be made available in those regions where competing service providers are likely to offer alternative services. We believe that competitive local service providers are likely to be providing service in the major metropolitan areas soon.[250] In those areas beyond the 100 largest MSAs, however, the actual pace of competitive entry into local markets should determine the need for service provider portability. We therefore agree with those parties that argue that, in markets outside of the 100 largest MSAs, long-term number portability should be deployed within six months of a specific request from another telecommunications provider.[251] We believe a six-month interval is appropriate given the

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[248] See supra ¶ 71.

[249] See US West Comments at 22; Illinois Commerce Commission Comments at 9.

[250] Competition has already begun in several MSAs. See Teleport Ex Parte Letter at 1-4, from Paul Kouroupas, to William Caton, FCC, CC Docket No. 95-116, filed Mar. 29, 1996 (Teleport March 29, 1996 Ex Parte Letter). AT&T has applied for certification in all 50 states. AT&T Ex Parte Letter at 2, from Frank Simone, to William F. Caton, FCC, CC Docket No. 95-116, filed Mar. 29, 1996 (AT&T March 29, 1996 Ex Parte Letter).

[251] See MCI June 19, 1996 Ex Parte Letter (arguing in favor of requiring provision of number portability in areas outside of 100 largest MSAs within six months of a request); Time Warner Holdings Comments at 14-16 (arguing in favor of requirement that number portability be provided within six months after request of another telecommunications carrier); Time Warner Holdings February 26, 1996 Ex Parte Filing at 3.

more significant network upgrades that may be necessary for carriers operating in these smaller areas.

83. We note that the 1996 Act exempts rural telephone companies from the "duty to negotiate . . . the particular terms and conditions of agreements to fulfill the [interconnection] duties" created by the 1996 Act, including the provision of number portability, and that carriers satisfying the statutory criteria contained in section 251(f) may be exempt from the obligations to provide number portability as set forth herein.[252] In addition, section 251(f)(2) permits a LEC with fewer than two percent of the country's total installed subscriber lines to petition a state commission for suspension or modification of the requirements of section 251.[253] In our recent notice of proposed rulemaking implementing sections 251 and 252 of the Communications Act, we address the application of this statutory exemption, and we believe that specific application of such provisions is best addressed in that proceeding.[254] We intend to establish regulations to implement these provisions by early August 1996, consistent with the requirements of section 251(d).[255]

84. In our Second Further Notice of Proposed Rulemaking on Billed Party Preference (BPP), we stated that the Commission would further consider the feasibility of implementing BPP in the upcoming proceeding to implement the 1996 Act's local number portability requirements in section 251(b)(2).[256] We recognize that our deployment schedule may have implications for the provision of BPP, the ability of a customer to designate in advance which Operator Service Provider (OSP) should be billed when that customer makes a call from a pay telephone. This capability may involve querying a database, similar to the proposed long-term number portability methods. In the BPP Second Further Notice, we noted that the record indicated that the cost of BPP would likely be substantial, and we sought comment on the costs of requiring OSPs to disclose their rates for 0+ calls in a variety of circumstances. In that Notice, we reaffirmed our belief that BPP would generate significant benefits for consumers, but stated that, at this time, unless local exchange providers were required to install the facilities needed to perform database queries for number portability purposes, the incremental cost to query the database for the customer's preferred OSP would outweigh the potential incremental

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[252] See 47 U.S.C. § 251(c), (f).

[253] 47 U.S.C. § 251(f)(2).

[254] Interconnection NPRM at ¶¶ 260-261.

[255] 47 U.S.C. § 251(d)(1) (mandating that Commission implement requirements of section 251 within six months of enactment of 1996 Act)

[256] Billed Party Preference for InterLATA 0+ Calls, Second Further Notice of Proposed Rulemaking, CC Docket No. 92-77, FCC 96-253, ¶ 4 (rel. June 6, 1996) (BPP Second Further Notice).

benefits that BPP would provide.[257] While we continue to recognize the benefits that could be achieved through such an approach, we note that creating the capability for all LECs to query OSP databases would require a uniform deadline to nationwide number portability which, for the reasons discussed above, is not in the public interest. Nonetheless, as indicated by our deployment schedule, LECs in the 100 largest MSAs will be required to install the capability to query number portability databases by December 31, 1998, which could then potentially be utilized for BPP in those markets.

85. Finally, we delegate to the Chief, Common Carrier Bureau, the authority to waive or stay any of the dates in the implementation schedule, as the Chief determines is necessary to ensure the efficient development of number portability, for a period not to exceed 9 months (i.e., no later than September 30, 1999). In the event a carrier is unable to meet our deadlines for implementing a long-term number portability method, it may file with the Commission, at least 60 days in advance of the deadline, a petition to extend the time by which implementation in its network will be completed. We emphasize, however, that carriers are expected to meet the prescribed deadlines, and a carrier seeking relief must present extraordinary circumstances beyond its control in order to obtain an extension of time. A carrier seeking such relief must demonstrate through substantial, credible evidence the basis for its contention that it is unable to comply with our deployment schedule. Such requests must set forth: (1) the facts that demonstrate why the carrier is unable to meet our deployment schedule; (2) a detailed explanation of the activities that the carrier has undertaken to meet the implementation schedule prior to requesting an extension of time; (3) an identification of the particular switches for which the extension is requested; (4) the time within which the carrier will complete deployment in the affected switches; and (5) a proposed schedule with milestones for meeting the deployment date.

E. Database Architecture and Administration

1. Background

86. In the Notice, we sought comment on the type of database architecture that would best serve the public interest and the technical feasibility of deploying a single national database or a series of regionally distributed databases.[258] We also sought comment on the type of information that should be contained within such database(s) and who should have access to such database(s).[259] Finally, we sought comment on administration of the number portability database(s), i.e., who should administer and

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[257] Id.

[258] Notice, 10 FCC Rcd at 12367.

[259] Id.

maintain the database(s), how should they be funded, how should the administrator(s) be selected, and what responsibilities should the administrator(s) be given.[260]

2. Position of the Parties

87. Many parties assert that any long-term number portability solution will require the use of one or more databases.[261] Jones Intercable states that use of a database solution: (1) makes numbering information available to numerous competing carriers; (2) provides the platform to offer other types of number portability; and (3) permits the deployment of other advanced services.[262] ACTA, AT&T, and Citizens Utilities assert that the database architecture of a long-term solution should resemble the architecture used for the toll free database, but with databases distributed on a regional basis.[263] US Intelco and MCI note that multiple, regional databases, rather than one national database, will be necessary to process the data for all portable geographic numbers.[264] Only Scherers Communications claims that a single national database will be able to accommodate all portable numbers, geographic and non-geographic, and will ensure consistency and cost efficiency.[265]

88. AT&T and several BOCs support the ability of individual carriers to download information from the regional databases to routing systems associated with their own networks, i.e., downstream databases.[266] Several other parties add that access to the regional databases must be open, and carriers, individually or collectively, must be permitted to develop routing databases that obtain information from the regional databases.[267] ITN contends that an architecture of regionally-deployed SCPs which correspond to blocks of NPA-NXXs would give carriers the option of maintaining their

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[260] Id. at 12367-68.

[261] ACTA Comments at 10; General Communication Comments at 5; GO Communications Comments at 6. See also Seattle LANP Trial Comments at 3.

[262] Jones Intercable Reply Comments at 8.

[263] ACTA Comments at 10; AT&T Comments at 17; Citizens Utilities Comments at 14.

[264] MCI Comments at 19; US Intelco Comments at 6. See also Citizen Utilities Comments at 14 (adding that it is not feasible to expand the 800 database or its architecture to include local number portability given the magnitude of such an undertaking).

[265] Scherers Communications Comments at 2.

[266] See, e.g., AT&T Comments at 17; BellSouth Reply Comments at 17; Pacific Bell Comments at 11. For definitions of SMS and SCP, see infra note 288.

[267] See, e.g., General Communication Comments at 5; MCI Comments at 17; NCTA Comments at 11.

own customer records or having a third party provider perform such functions.[268] It adds that such openness in data management will help ensure number portability to all service providers, including providers of service to end users and various other intelligent network service providers.[269]

89. Almost all parties, incumbent LECs and new entrants, support administration of the database(s) by a neutral third party.[270] MFS adds that the operator of a number portability database must not be able to gain a competitive advantage by manipulating the data or controlling access to the database.[271] ACTA urges that the database administrator be a non-profit organization selected through a competitive bidding process that excludes LECs and IXCs, with responsibilities established by the North American Numbering Plan Administrator (NANPA).[272]

90. Competitive Carriers assert that the database(s) should include only service provider portability-specific information, and that the carriers using the database should be responsible for the integrity of these data.[273] Teleport claims that an industry group should determine the contents of any distributed databases, subject to the Commission's criteria.[274] The Texas Advisory Commission also asserts that the database(s) should easily integrate with 911 databases.[275]

3. Discussion

91. Section 251(b) directs the Commission to establish requirements governing the provision of number portability without specifically addressing the appropriate database architecture necessary for long-term number portability.[276] We find that an architecture that uses regionally-deployed databases best serves the public interest and is

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[268] ITN Comments at 18-20.

[269] Id.

[270] See, e.g., AT&T Comments at 34; Omnipoint Reply Comments at 8; SBC Communications Comments at 23.

[271] MFS Comments at 13.

[272] ACTA Comments at 11-12. See also BellSouth Reply Comments at 20-21.

[273] Competitive Carriers Comments at 18. See also General Communication Comments at 5.

[274] Teleport Comments at 9.

[275] Texas Advisory Commission Comments at 3.

[276] See 47 U.S.C. § 251(b)(2).

supported by the record.[277] The deployment of multiple regional databases will facilitate the ability of LECs to provide number portability by reducing the distance that such carriers will have to transmit carrier routing information. This, in turn, should reduce the costs of routing telephone calls based on such data. Moreover, a nationwide system of regional databases would relieve individual carriers of the burden of deploying multiple number portability databases over various geographic areas. A regionally-deployed database system will ensure that carriers have the number portability routing information necessary to route telephone calls between carriers' networks, and will also promote uniformity in the provision of such number portability data. We agree with those parties arguing that one national number portability database is not feasible. The potential amount of information that such a database would be required to process would, according to parties in this proceeding, likely become overwhelming as number portability is deployed nationwide.[278]

92. We also conclude that it is in the public interest for the number portability databases to be administered by one or more neutral third parties. Both the record and the Commission's recent decision to reorganize the administration of telephone numbers under the NANP support neutral third party administration of these facilities.[279] We also note that section 251(e)(1) requires the Commission to "create or designate one or more impartial entities to administer telecommunications numbering and to make such numbers available on an equitable basis."[280] Neutral third party administration of the databases containing carrier routing information will facilitate entry into the communications marketplace by making numbering resources available to new service providers on an efficient basis. It will also facilitate the ability of local service providers to transfer new customers by ensuring open and efficient access for purposes of updating customer records. As we stated above, the ability to transfer customers from one carrier to another, which includes access to the data necessary to perform that transfer, is important to entities that wish to compete in the local telecommunications market.[281] Neutral third party administration of the carrier routing information also ensures the equal treatment of all carriers and avoids any appearance of impropriety or anti-competitive conduct.[282] Such administration facilitates consumers' access to the public switched network by

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[277] See, e.g., ACTA Comments at 10; AT&T Comments at 17; US Intelco Comments at 6.

[278] See MCI Comments at 19; US Intelco Comments at 6.

[279] See, e.g., ACTA Comments at 11-12; MFS Comments at 13; Omnipoint Reply Comments at 8; Numbering Plan Order, 11 FCC Rcd at 2596, 2604, 2609, 2613.

[280] 47 U.S.C. § 251(e)(1).

[281] See supra ¶¶ 27-31.

[282] Numbering Plan Order, 11 FCC Rcd at 2595-96; Proposed 708 Relief Plan and 630 Numbering Plan Area Code by Ameritech - Illinois, 10 FCC Rcd 4596, 4604, recon. pending (1995).

preventing any one carrier from interfering with interconnection to the database(s) or the processing of routing and customer information. Neutral third party administration would thus ensure consistency of the data and interoperability of number portability facilities, thereby minimizing any anti-competitive impacts.[283]

93. We hereby direct the NANC to select as a local number portability administrator(s) (LNPA(s)) one or more independent, non-governmental entities that are not aligned with any particular telecommunications industry segment within seven months of the initial meeting of the NANC.[284] Selection of the LNPA(s) falls within the duties we established for the NANC in the Numbering Plan Order and the NANC Charter.[285] The NANC charter describes the scope the NANC's activities:

> The purpose of the [NANC] is to advise the [Commission] and to make recommendations, reached through consensus, that foster efficient and impartial number administration. The [NANC] will develop policy on numbering issues, initially resolve disputes, and select and provide guidance to the North American Numbering Plan Administrator.[286]

The fundamental purpose of the NANC is to act as an oversight committee with the technical and operational expertise to advise the Commission on numbering issues.[287] The Commission has already directed the NANC to select a NANPA. We believe the designation of a centralized entity to select and oversee the LNPA(s) is preferable to ensure consistency and to provide a national perspective on number portability issues, as well as to reduce the costs of implementing a national number portability plan.

94. We believe that the NANC is especially well-situated to handle matters relating to local number portability administration because of its similarity to the administration of central office codes. Both functions rely heavily on the use of databases, and both involve administration of NANP resources, only at different levels. Administration of number portability data is essentially the administration of telephone numbers (as opposed to NXX codes) between different carriers.

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[283] Numbering Plan Order, 11 FCC Rcd at 2595-96.

[284] Only the United States participants in the NANC shall be involved in the selection of the LNPA(s).

[285] Numbering Plan Order, 11 FCC Rcd at 2609.

[286] Charter of the North American Numbering Council, approved Oct. 5, 1995, on file with Network Services Division, Common Carrier Bureau, FCC. See also FCC Requests Nominations for Membership on the North American Numbering Council Advisory Committee, 10 FCC Rcd 9991 (1995).

[287] Numbering Plan Order, 11 FCC Rcd at 2609.

95. We believe that the NANC should determine, in the first instance, whether one or multiple administrators should be selected, whether LNPA(s) can be the same entity selected to be the NANPA, how the LNPA(s) should be selected, the specific duties of the LNPA(s), and the geographic coverage of the regional databases. Once the NANC has selected the LNPA(s) and determined the locations of the regional databases, it must report its decisions to the Commission. The NANC should also determine the technical interoperability and operational standards, the user interface between telecommunications carriers and the LNPA(s), and the network interface between the SMS and the downstream databases. Finally, the NANC should develop the technical specifications for the regional databases, e.g., whether a regional database should consist of a service management system (SMS) or an SMS/SCP pair.[288] In reaching its decisions, the NANC should consider the most cost-effective way of accomplishing number portability. We note that it will be essential for the NANPA to keep track of information regarding the porting of numbers between and among carriers. We thus believe it necessary for the NANC to set guidelines and standards by which the NANPA and LNPA(s) share numbering information so that both entities can efficiently and effectively administer the assignment of the numbering resource. For example, the NANC might require that the databases easily integrate with 911 databases.

96. We recognize that authorizing the NANC to select a LNPA(s) may have an impact on Illinois's April 1996 selection of Lockheed-Martin as the administrator of the Illinois SMS, as well as the Maryland and Colorado task forces' plans to release their RFPs for their SMS administrators in the second quarter of 1996.[289] Therefore, in light of these and other ongoing efforts by state commissions, we conclude that any state that prefers to develop its own statewide database rather than participate in a regionally-deployed database may opt out of its designated regional database and implement a state-specific database.[290] We direct the Chief, Common Carrier Bureau, to issue a Public Notice that identifies the administrator selected by the NANC and the proposed locations of the regional databases. A state will have 60 days from the release date of the Public Notice to notify the Common Carrier Bureau and NANC that the state does not wish to

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[288] An SMS is a database or computer system not part of the public switched network that, among other things: (1) interconnects to an SCP and sends to that SCP the information and call processing instructions needed for a network switch to process and complete a telephone call; and (2) provides telecommunications carriers with the capability of entering and storing data regarding the processing and completing of a telephone call.

An SCP is a database in the public switched network which contains information and call processing instructions needed to process and complete a telephone call. The network switches access an SCP to obtain such information. Typically, the information contained in an SCP is obtained from the SMS.

[289] See Ameritech May 15, 1996 Ex Parte Filing at 3; MD PSC Report at app. 1 at 17; CO PUC May 9, 1996 News Release; CO PUC May 29, 1996 News Release.

[290] See 47 U.S.C. § 251(d)(3).

participate in the regional database system for number portability. Carriers may challenge a state's decision to opt out of the regional database system by filing a petition with the Commission. Relief will be granted if the petitioner can demonstrate that the state decision to opt out would significantly delay deployment of permanent number portability or result in excessive costs to carriers. We note that state databases would have to meet the national requirements and operational standards recommended by the NANC and adopted by this Commission. In addition, such state databases must be technically compatible with the regional system of databases and must not interfere with the scheduled implementation of the regional databases.

97. We further note that any administrator selected by a state prior to the release of this Order that wishes to bid for administration of one of the regional databases must submit a new proposal in accordance with the guidelines established by the NANC. We emphasize that nothing in this section affects any other action that the Commission may take regarding the delegation and transfer of functions related to number administration. We delegate authority to the Chief, Common Carrier Bureau, to monitor the progress of the NANC in selecting the LNPA(s) and in developing and implementing the database architecture described above.

98. We believe that telecommunications carriers should have open access to all regional databases. Just as we conclude all carriers must have equal access to any long-term number portability method, and that no portion of a long-term number portability method should be proprietary to any carrier, we further conclude that all carriers must have equal and open access to all regionally-deployed databases containing number portability-specific data. Allowing particular carriers access to the databases over others would be inherently discriminatory and anti-competitive. All carriers providing number portability need to have access to all relevant information to be able to provide customers with this important capability. We thus conclude that the 1996 Act, in addition to general rules of equity and competitive neutrality, requires equal and open access to all regionally-deployed databases for all carriers wishing to interconnect.

99. We believe that, at this time, the information contained in the number portability regional databases should be limited to the information necessary to route telephone calls to the appropriate service providers. The NANC should determine the specific information necessary to provide number portability. To include, for example, the information necessary to provide E911 services or proprietary customer-specific information would complicate the functions of the number portability databases and impose requirements that may have varied impacts on different localities.[291] For instance, because different localities have adopted different emergency response systems, the regional databases would have to be configured in such a fashion as to provision the appropriate emergency information to each locality's particular system. Similarly, special

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[291] Marion County Comments at 1-2; NENA Reply Comments at 1-3; US West Comments at 18.

systems would need to be developed to restrict access to proprietary customer-specific information. In either instance, the necessary programming to add such capabilities to the regional databases would complicate the functionality of those databases.

100. Because we require open access to the regional databases, it would be inequitable to require carriers to disseminate, by means of those databases, proprietary or customer-specific information. We therefore contemplate that the regional deployment of databases will permit individual carriers to own and operate their own downstream databases. These carrier-specific databases will allow individual carriers to provide number portability in conjunction with other functions and services. To the extent that individual carriers wish to mix information, proprietary or otherwise, necessary to provide other services or functions with the number portability data, they are free to do so at their downstream databases. We reiterate, however, that a carrier may not withhold any information necessary to provide number portability on the grounds that such data are combined with other information in its downstream database; it must furnish all information necessary to provide number portability to the regional databases as well as to its own downstream database.

101. Carriers that choose not to access directly the regional databases or deploy their own downstream databases can seek access to the carrier-specific databases deployed by other carriers. The provision of access to network elements and facilities of incumbent LECs is addressed in our proceeding implementing section 251 of the Communications Act.[292] We believe the issue of access to incumbent LECs' carrier-specific databases by other carriers for purposes of number portability is best addressed in that proceeding. Parties may negotiate third-party access to non-incumbent LECs' carrier-specific databases on an individual basis.

102. In the Numbering Plan Order, we concluded that the Commission should invoke its statutory authority to recover its costs for regulating numbering activities, including costs incurred from the establishment, oversight of, and participation in the NANC.[293] The Commission is required to institute a rulemaking proceeding annually to adjust the schedule of regulatory fees to reflect its performance of activities relating to enforcement, policy and rulemaking, user information services, and international activities, pursuant to the relevant appropriations legislation.[294] Therefore, we intend to include the additional costs incurred by the Commission related to NANC and regulating number portability in the fiscal 1997 adjustment of the schedule of regulatory fees. In that proceeding, we will assess the nature and amount of the additional burdens imposed

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[292] Interconnection NPRM at ¶¶ 107-16; see generally id. at II.B.2.c.

[293] 47 U.S.C. § 152; Numbering Plan Order, 11 FCC Rcd at 2623.

[294] 47 U.S.C. § 159(b)(2).

by the activities authorized here, and all interested parties will be afforded an opportunity to comment.

F. Currently Available Number Portability Measures

1. Background

103. In the Notice, we discussed certain currently available number portability measures that LECs can use to provide service provider number portability. We focused on RCF and DID and acknowledged that the use of either method for number portability has significant limitations.[295] We sought comment on the costs of implementing these measures, and on their limitations and disadvantages.[296] We also requested that parties discuss whether these currently available measures can be improved so that they are workable, long-term solutions, and if so, at what cost.[297] Finally, we sought comment on how the costs of providing service provider portability using RCF and DID should be recovered.[298]

2. Implementation of Currently Available Number Portability Measures

a. Positions of the Parties

104. Commenting parties, with the exception of several of the incumbent LECs, generally agree that the technical limitations described in the Notice render the interim measures unacceptable in the long term.[299] Indeed, many parties point out additional

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[295] Notice, 10 FCC Rcd at 12369-70. The limitations of RCF described in the Notice include: (1) significant strain on number plan administration and contribution to area code exhaustion; (2) failure to support several custom local area signalling services and other vertical features, and possible degradation of transmission quality; (3) limits on the number of calls to customers of the same competing service provider that can be handled at any one time; (4) preclusion of efficient routing of calls by competing networks since the incumbent LEC is always involved in the routing of calls even to a customer who has chosen to change to another provider; and (5) recovery of interstate access charges from IXCs by the LEC instead of the competing local service provider. Id. at 12369. DID has many of the same limitations as RCF, such as the inability to support certain CLASS features, the possible degradation of transmission quality, and limits on how many calls can be processed at any one time. Id. at 12369-70.

[296] Id. at 12370.

[297] Id.

[298] Id. at 12371.

[299] See, e.g., Cablevision Lightpath Reply Comments at 8-10; Competitive Carriers Comments at 18-19; General Communications Comments at 4. Cf. Bell Atlantic Comments at 5-7; NYNEX Comments at 7, 9.

disadvantages of RCF and DID, such as: longer call set-up times, incumbent access to competitors' proprietary information, complicated resolution of customer complaints, increased potential for call blocking, and substantial costs to new entrants.[300] Bell Atlantic counters that calls forwarded by RCF in its network can support CLASS features if the co-carrier has modern digital switching equipment and common channel signalling, and it adds that there is no limit on the number of calls RCF can handle simultaneously.[301]

105. Many of the new entrants, nevertheless, urge the Commission to require incumbent LECs to provide interim measures until a long-term solution is implemented.[302] These carriers generally caution that use of interim solutions should not delay implementation of a permanent solution.[303] While acknowledging that RCF and DID are already technically feasible and generally available, several LECs argue that the Commission need not take action on interim measures.[304] They generally focus, instead, on phasing in a long-term solution.[305]

106. AT&T and MCI initially argued for using a medium-term database solution, namely, the Carrier Portability Code (CPC) method,[306] because of its advantages over RCF or DID,[307] but subsequently favored implementing LRN as soon as possible.[308]

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[300] See, e.g., Cablevision Lightpath Reply Comments at 10; Teleport Comments at 7; MCI Comments at 22.

[301] Bell Atlantic Comments at 5-7.

[302] See, e.g., NCTA Comments at 12; MCI Reply Comments at 13; Telecommunications Resellers Comments at 16. See also Competitive Carriers Comments at 19 (urging Commission to endorse certain improvements to interim measures).

[303] See, e.g., Ad Hoc Telecommunications Users Committee Reply Comments at 5; NCTA Comments at 12-13; GSA Reply Comments at 6.

[304] See, e.g., Ameritech Further Comments at 6-7 (Act confirms appropriateness of RCF and DID as interim methods); Bell Atlantic Further Reply Comments at 6-7 (asserting that section 252 and interconnection agreements sufficiently guarantee provision of interim measures); NYNEX Comments at 7; USTA Further Comments at 2.

[305] See, e.g., Ameritech Comments at 5; Bell Atlantic Comments at 19-20; BellSouth Comments at 46-47. But see GTE Further Comments at 8 (short time frame for implementation mandated by Act compels Commission to impose temporary instead of permanent method).

[306] CPC is a database number portability method originally proposed by MCI, DSC Communications, Nortel, Tandem Computers, and Siemens Stromberg-Carlson. See supra ¶ 14, 23.

[307] AT&T Comments at 31-32 (CPC is compatible with LRN, supports an N-1 call processing scenario, avoids routing calls through incumbent LEC networks, permits carriers to own or provide for their own routing databases, and supports vertical features); MCI Comments at 10-14. See also ACTA Reply Comments at 9, 12

NYNEX and SBC Communications claim that adopting CPC as an interim solution would result in wasted and duplicative efforts. They note that CPC fails to support certain services, such as ISDN calls, pay phone calls, and CLASS features when customers place a call into an NXX from which a number has been transferred to a different service provider, and that CPC may prevent an operator from identifying the switch serving a "ported" number, thereby interfering with busy line verification of that line.[309]

107. Potential new entrants into the local exchange market generally contend that requiring interim number portability is consistent with the 1996 Act.[310] Indeed, MFS maintains that the 1996 Act requires immediate implementation of interim measures until long-term portability is implemented.[311] Teleport notes that the Bell Operating Companies, at least, are required to provide interim number portability as a condition of entry into the interLATA[312] market.[313] MCI agrees that interim measures should be made available until long-term portability is implemented, and argues that section 4(i) of the Communications Act authorizes the Commission to perform any acts "necessary and proper" to execute section 251(b)(2), and that such authority is pre-existing and remains in effect.[314] ALTS contends that Congress clearly contemplated that the Commission should require interim measures until long-term portability is available because otherwise BOCs could satisfy the competitive checklist of section 271(c)(2)(B)(xi) for entry in

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(CPC: (1) does not require development of switching systems; (2) does not impact billing systems; (3) can be implemented with minimum service/feature interaction; (4) can be rolled out on a regional basis; (5) does not affect LIDB, operator functions, or the format of the called-party number; and (6) can evolve into AT&T's LRN solution).

[308] See generally AT&T February 6, 1996 Ex Parte Filing; MCI Ex Parte Letter, from Donald F. Evans, to Regina Keeney, FCC, CC Docket No. 95-116, filed Mar. 15, 1996 (MCI March 15, 1996 Ex Parte Letter).

[309] NYNEX Reply Comments at 3, 6-7; SBC Reply Comments at 10, 11 n.17, 15.

[310] The Texas Advisory Commission urges the Commission to clarify that states may include public health and safety requirements, such as Automatic Location Information (ALI) retrieval of the directory number, for interim measures based on section 253(b). According to the Texas Advisory Commission, this section allows states to impose requirements to protect the public safety and welfare. Texas Advisory Commission Further Reply Comments at 3 (citing 47 U.S.C. § 253(b)).

[311] MFS Further Comments at 1-4, 7-8.

[312] For purposes of this proceeding, we define the terms "local access and transport area" or "LATA" and "interLATA service" as defined in 47 U.S.C. §§ 153(25) and 153(21), respectively.

[313] Teleport Further Comments at 2.

[314] MCI Further Comments at 8 & n.15; MCI Ex Parte Letter, from Leonard S. Sawicki, to Matthew Harthun, FCC, CC Docket No. 95-116, filed Mar. 29, 1996 (MCI March 29, 1996 Ex Parte Letter).

interLATA services without providing any form of number portability.[315] AT&T argues that interim arrangements are incapable of preserving the functionality for long-term number portability required by the 1996 Act, but should be provided until long-term number portability can be deployed.[316]

108. US West, in contrast, asserts that the Commission's jurisdiction over interim measures is unclear because sections 153(30) and 251(b)(2), giving the Commission jurisdiction over number portability, appear to include only permanent portability.[317] Cox and NCTA claim that the interim measures do not satisfy the "without impairment of quality, reliability, or convenience" standard in the definition of number portability in 47 U.S.C. section 153(30).[318]

109. Several of the cable interests argue that, although section 271(c)(2)(B)(xi) allows the BOCs initially to satisfy the competitive checklist for entry into interLATA services by providing only interim measures, the BOCs are also required to provide long-term portability to fulfill the checklist requirements. Moreover, Cox and Time Warner Holdings warn that the Commission will lose its leverage to encourage prompt implementation of long-term portability once the BOCs are permitted to provide in-region interLATA services pursuant to section 271.[319] NCTA asserts that, since section 271(c)(2)(B)(xi) distinguishes between "interim" measures and "regulations pursuant to section 251 to require number portability," the portability required by section 251 is long-term number portability.[320] CCTA urges the Commission to review and require BOC progress toward deployment of a long-term method when BOCs apply for in-region interLATA market entry, and to deny a BOC application if the BOC tries to delay implementation of long-term portability.[321] Cox goes further and argues that, after the Commission adopts number portability rules, BOCs must implement long-term service provider portability, not just interim measures, before they can obtain interexchange and manufacturing relief under section 271 because interim measures do not satisfy section 251.[322] In response, Ameritech contends that provision of interim measures, and

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[315] ALTS Further Comments at 4-5.

[316] AT&T Further Comments at 9, 10 & n.20.

[317] US West Further Reply Comments at 9 & n.10.

[318] Cox Further Comments at 6; NCTA Further Comments at 4.

[319] Cox Further Comments at 7; Time Warner Holdings Further Comments at 8 n.19.

[320] NCTA Further Comments at 5 n.11.

[321] CCTA Further Comments at 3, 8-9.

[322] Cox Further Comments at 5-7.

later compliance with the Commission's portability rules, satisfies the BOC checklist and notes that section 271(d)(4) directs the Commission not to limit or extend the checklist terms.[323]

b. Discussion

110. The 1996 Act requires that carriers "provide, to the extent technically feasible, number portability in accordance with the requirements prescribed by the Commission."[324] Number portability is defined in the 1996 Act as "the ability of users of telecommunications services to retain, at the same location, existing telecommunications numbers without impairment of quality, reliability, or convenience when switching from one telecommunications carrier to another."[325] The record indicates that currently technically feasible methods of providing number portability, such as RCF and DID, may impair to some degree either the quality, reliability, or convenience of telecommunications services when customers switch between carriers.[326] Because of these drawbacks, some may argue that the use of RCF and DID methods for providing number portability would not satisfy the requirements of sections 3(30) and 251(b)(2). We disagree. Section 251(b)(2) specifically requires carriers to provide number portability, as defined in section 3(30), "to the extent technically feasible." Thus, because currently RCF and DID are the only methods technically feasible, we believe that use of these methods, in fact, comports with the requirements of the statute. We believe that the 1996 Act contemplates a dynamic, not static, definition of technically feasible number portability methods. Under this view, LECs are required to offer number portability through RCF, DID, and other comparable methods because they are the only methods that currently are technically feasible. LECs are required by this Order to begin the deployment of a long-term number portability solution by October 1, 1997, because, based on the evidence of record, such methods will be technically feasible by that date. We believe that this conclusion is consistent with Congress's goal of developing a national number portability framework, as well as the general purpose of the Act to "promote competition . . . in order to secure lower prices and higher quality services for American telecommunications consumers and encourage the rapid deployment of new technologies."[327]

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[323] Ameritech Further Reply Comments at 6. See also BellSouth Further Reply Comments at 2 n.5, 5; NYNEX Further Reply Comments at 6.

[324] See 47 U.S.C. § 251(b)(2).

[325] See 47 U.S.C. § 153(30).

[326] See, e.g., AT&T Further Comments at 9; Cox Further Comments at 6; NCTA Further Comments at 4.

[327] See 1996 Act, 110 Stat. 56 (statement of 1996 Act's purpose).

111. This interpretation finds further support in section 271(c)(2)(B)(xi), which sets forth the competitive checklist for BOC entry into in-region interLATA services. That section requires the BOCs wishing to enter the in-region interLATA market: (1) to provide interim number portability through RCF, DID, and other comparable arrangements "until the date by which the Commission issues regulations pursuant to section 251 to require number portability," and then (2) to comply with the Commission's regulations.[328] There will necessarily be a significant time period between the adoption date of these rules and the availability of long-term number portability measures. Therefore, were the Commission to promulgate rules providing only for the provision of long-term number portability, during this time period the BOCs could satisfy the competitive checklist without providing any form of number portability. This could be true even if they had been providing interim number portability pursuant to the checklist prior to the effective date of the Commission's regulations. We do not believe that Congress could have intended this result. We, therefore, agree with MFS, ALTS, MCI, and AT&T that Congress intended that currently available number portability measures be provided until a long-term number portability method is technically feasible and available.

112. We conclude that we had authority to require the provision of currently available methods of service provider portability prior to passage of the 1996 Act. In the Notice, we tentatively concluded that sections 1 and 202 of the Communications Act establish a federal interest in the provision of number portability.[329] Specifically, we concluded in the Notice that such interest arises from: (1) our obligation to promote an efficient and fair telecommunications system;[330] (2) the inability to separate the impact of number portability between intrastate and interstate telecommunications;[331] (3) the potential adverse impact deploying different number portability solutions across the country would have on the provision of interstate telecommunications services;[332] and (4) the impact number portability could have on the use of the numbering resource,[333] that is, ensuring that the use of numbers is efficient and does not contribute to area code exhaust. We now affirm these tentative conclusions and conclude that we have

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[328] See 47 U.S.C. § 271(c)(2)(B)(xi).

[329] See Notice, 10 FCC Rcd at 12361-62 (citing 47 U.S.C. § 151 -- requiring the Commission to make available to all people of the United States "a rapid, efficient, nation-wide, and world-wide wire and radio communications service;" 47 U.S.C. § 202 -- requiring that the charges, practices, classifications, regulations, facilities, and services of common carriers not be unreasonably discriminatory; Proposed 708 Relief Plan and 630 Numbering Plan Area Code by Ameritech - Illinois, Declaratory Ruling and Order, 10 FCC Rcd 4596, 4601-02 (1995)).

[330] Notice, 10 FCC Rcd at 12361-62.

[331] Id. at 12361 & n.34.

[332] Id. at 12362.

[333] Id.

jurisdiction to require the provision of currently available number portability methods, independent of the statutory changes adopted in the 1996 Act.

113. There are also substantial policy reasons that support our requiring LECs to provide currently available number portability measures. The ability of customers to keep their telephone numbers when changing carriers, even with some impairment in call set-up time or vertical service offerings, is critical to opening the local marketplace to competition.[334] By facilitating entry of new carriers into the local market, currently available number portability measures will increase competition in local markets which will result in lower prices and higher service quality for telecommunications services consistent with the goals of the 1996 Act. Several parties to this proceeding likewise advocate that such measures are necessary for the development of effective local exchange competition.[335]

114. We note that sections 251(b)(2) and 251(d) give to the Commission the authority to prescribe requirements for the provision of number portability. Pursuant to that authority, we mandate the provision of currently available number portability measures as soon as reasonably possible upon receipt of a specific request from another telecommunications carrier, including from wireless service providers.[336] By conditioning the obligation to provide currently available number portability measures upon a specific request, number portability will be offered only in those areas where a competing local exchange carrier seeks to provide service. Thus, it avoids the imposition of number portability implementation costs on carriers (and end users) in areas where no competitor is operating.

115. We agree with the many parties who claim that the technical limitations described in the Notice that handicap all currently available measures for providing number portability render them unacceptable as long-term solutions. Despite Bell Atlantic's claims to the contrary for its own network,[337] the record indicates that currently available number portability measures are inferior to LRN portability or any other method that meets our performance criteria. The 1996 Act, and particularly the BOC checklist in section 271, clearly contemplates that these methods should serve as only temporary measures until long-term number portability is implemented.[338] As indicated above, the 1996 Act requires that number portability be provided, to the extent technically feasible,

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[334] See supra ¶¶ 29-32.

[335] See, e.g., Cablevision Lightpath Reply Comments at 8-9; Jones Intercable Comments at 4.

[336] See 47 U.S.C. § 251(b)(2), (d).

[337] Bell Atlantic Comments at 5-7.

[338] See, e.g., AT&T Further Comments at 9-10.

without impairment of quality, reliability, and convenience.[339] Therefore, when a number portability method that better satisfies the requirements of section 251(b)(2) than currently available measures becomes technically feasible, LECs must provide number portability by means of such method. In addition, we find that the existing measures fail to satisfy our criteria set forth for any long-term solution; for example, they depend on the original service provider's network, may result in the degradation of service quality, and are wasteful of the numbering resource. For these reasons, we do not believe that long-term use of the currently available measures is in the public interest. We emphasize that we encourage all LECs to implement a long-term solution that meets our technical standards as soon as possible. We also note that BOCs must comply with the requirements set forth in this Order, including the requirement to provide currently available measures, in order to satisfy the BOC competitive checklist.[340] Upon the date on which long-term portability must be implemented according to our deployment schedule, BOCs must provide long-term number portability and will be subject to an enforcement action under section 271(d)(6) if they fail to do so.[341]

116. We decline to require a "medium-term" or short-term database solution such as CPC. The increased costs of implementing this approach are unwarranted given the imminent implementation of a long-term solution that meets our criteria. In addition, devoting resources to implement a medium-term database solution, which is currently not available, may delay implementation of a long-term database solution.[342] We note that the Colorado, Georgia, Illinois, and Ohio state commissions have declined to adopt, and the California and Maryland task forces have declined to recommend, CPC as an interim solution,[343] while the emphasis on New York's CPC trial has shifted in favor of concentrating on the adoption of LRN.[344] We also note that several parties originally advocating CPC have since retreated from that view and now instead support implementing a long-term database solution as soon as possible.[345] To the extent carriers

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[339] See 47 U.S.C. §§ 153(30), 251(b)(2).

[340] See 47 U.S.C. § 271(c)(2)(B)(xi).

[341] 47 U.S.C. § 271(d)(6) (allowing Commission, among other sanctions, to suspend or revoke approval of BOC application to provide interLATA services).

[342] See Time Warner Holdings Comments at 13 & n.16 (implementation of CPC would take approximately six months).

[343] See CA LNP Task Force Report at 44-46; CO PUC LNP Order; CO PUC Proposed Rules Regarding Local Number Portability, Decision Adopting Rules, Docket No. 95R-554T, at attachment A at 4 (adopted Feb. 7, 1996); ICC LNP Order; GA PSC Portability Order at 6; MD PSC Report; Ohio PUC Competition Order at section XIV.

[344] NY DPS Portability Trial Report at 6-7.

[345] Time Warner Holdings February 12, 1996 Ex Parte Filing; AT&T February 28, 1996 Ex Parte Filing.

wish to provide a medium-term database solution; such as CPC, however, we do not prevent them from doing so.

3. Cost Recovery for Currently Available Number Portability Measures

a. Positions of the Parties

117. In comments filed before passage of the 1996 Act, Cablevision Lightpath argues that all carriers should pay incremental, cost-based rates for interim measures and suggests, as an example, an annual surcharge based on the product of the incremental cost of switching and minutes of traffic forwarded.[346] AT&T and MCI agree with Cablevision Lightpath and endorse the formula used by the New York Department of Public Service, which allocates the costs of providing interim measures across all carriers based on the product of switching and transport costs, and minutes of forwarded traffic.[347] Cablevision Lightpath urges, however, the Commission to ban incumbent LECs from treating the costs of currently available number portability as exogenous adjustments to their interstate price cap indices.[348] GSA, Jones Intercable, and the Users Committee point out that the short-term incremental costs of providing interim measures are low.[349]

118. Many of the new entrants advocate placing much of the burden of cost-recovery for interim measures on the incumbent LECs. Jones Intercable, along with several other cable interests, argues that the incumbent LECs and new LECs should recover the costs of interim measures under a "bill and keep" system, under which incumbent LECs and new entrants would not charge each other for interim number portability arrangements that require them to forward calls of customers who have changed service providers.[350] In the alternative, Jones Intercable contends that incumbent LECs' charges for interim number portability services should be equal to or less than the

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[346] Cablevision Lightpath Reply Comments at 11-13.

[347] MCI March 29, 1996 Ex Parte Filing; AT&T Further Reply Comments at 8 n.30; MCI March 15, 1996 Ex Parte Filing; MCI Further Reply Comments at 9-10.

[348] Cablevision Lightpath Reply Comments at 13.

[349] GSA Reply Comments at 5; Jones Intercable Comments at 5; Users Committee Comments at 4.

[350] See, e.g., Jones Intercable Comments at 5; Jones Intercable Reply Comments at 11-12; NCTA Comments at 13; Time Warner Holdings Comments at 21-22. See also Competitive Carriers Comments at 12.

LECs' incremental cost of providing those services.[351] Teleport also supports the provision of interim portability measures with no intercarrier usage charges.[352]

119. Several commenters propose large discounts comparable to those mandated for non-equal access during the transition to equal access.[353] Competitive Carriers assert that allowing LECs to charge retail prices would discourage provision of long-term number portability.[354] MCI argues that portability is a network function, not a service, and proposes that all local carriers share the costs or at least that incumbent LECs not be allowed to recover more than the incremental costs.[355] AT&T and MFS argue that any interim measures should be provided at rates that encourage incumbents to offer the most efficient routing available, or reflect these measures' inferior quality and true costs.[356] ALTS and MFS further argue that competitive local exchange carriers should be entitled to retain all terminating access charges.[357] Similarly, MCI and NCTA argue that the terminating access charges paid by IXCs should be shared with the competitor that actually completes calls forwarded to it.[358]

120. AT&T and MCI argue that the 1996 Act requires that the costs of providing interim number portability measures be borne by all telecommunications carriers on a competitively neutral basis.[359] MFS argues that interim measures should be provided at no cost or in the alternative, allocated on revenues net of payments to intermediaries.[360] Several LECs, in contrast, claim that the competitively neutral standard prohibits requiring incumbent LECs to subsidize their competitors by providing interim

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[351] Jones Intercable Reply Comments at 12.

[352] Teleport Comments at 15-16; Teleport Reply Comments at 16. See also MFS Further Comments at 8.

[353] Competitive Carriers Comments at 12. See also General Communication Reply Comments at 5; Time Warner Holdings Comments at 21-22.

[354] Competitive Carriers Comments at 20.

[355] MCI Reply Comments at 14-16. MCI adds that state commissions must review the cost bases for the tariffs implementing RCF and DID. Id. at 16.

[356] AT&T Comments at 15 n.21; MFS Further Reply Comments at 8-9.

[357] ALTS Further Comments at 7; MFS Further Reply Comments at 9.

[358] MCI Ex Parte Letter, from Donald F. Evans, to Regina Keeney, FCC, CC Docket No. 95-116, filed May 28, 1996 (MCI May 28, 1996 Ex Parte Letter); NCTA Comments at 13.

[359] AT&T Further Comments at 10 & n.20; MCI Further Comments at 8.

[360] MFS Further Reply Comments at 9.

measures for free or at deeply discounted rates.[361] Ameritech asserts that section 251(e)(2)'s "competitively neutral" standard for cost recovery does not apply to interim portability at all. It asserts that interim portability is addressed in section 271(c)(2)(B)(xi), and therefore the Commission is not authorized under the BOC checklist to eliminate or discount interim portability rates below levels that state commissions have already judged reasonable.[362] Similarly, BellSouth argues that Congress's endorsement of interim RCF and DID arrangements in the BOC checklist, and the 1996 Act's structure of requiring state-approved carrier negotiations for interconnection agreements, compel the conclusion that RCF and DID cost recovery issues be left to the states.[363]

b. Discussion

121. In light of our statutory mandate that local exchange carriers provide number portability through RCF, DID, or other comparable arrangements until a long-term number portability approach is implemented, we must adopt cost recovery principles for currently available number portability that satisfy the 1996 Act. We emphasize that the cost recovery principles set forth below will apply only until a long-term number portability method can be deployed. As we have indicated, deployment of long-term number portability should begin no later than October 1997, so currently available number portability arrangements, and the associated cost recovery mechanism, should be in place for a relatively short period.

122. It is also important to recognize that the costs of currently available number portability are incurred in a substantially different fashion than the costs of long-term number portability arrangements. First, the capability to provide number portability through currently available methods, such as RCF and DID, already exists in most of today's networks, and no additional network upgrades are necessary. In contrast, long-term, or database, number portability methods require significant network upgrades, including installation of number portability-specific switch software, implementation of SS7 and IN or AIN capability, and the construction of multiple number portability databases. Second, the costs of providing number portability in the immediate term are incurred solely by the carrier providing the forwarding service. Long-term number portability, in contrast, will require all carriers to incur costs associated with the installation of number portability-specific software and the construction of the number portability databases. Those costs will have to be apportioned in some fashion among all carriers. Finally, we note that, initially, the costs of providing currently available

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[361] See, e.g., Bell Atlantic Further Reply Comments at 7; GTE Further Reply Comments at 6-7; Pacific Bell Further Reply Comments at 8 n.16.

[362] Ameritech Further Reply Comments at 8.

[363] BellSouth Further Reply Comments at 8.

number portability will be incurred primarily by the incumbent LEC network because most customers will be forwarding numbers from the incumbents to the new entrants.

123. Parties have advanced a wide range of methods for recovering the costs of currently available number portability measures, including arrangements whereby neither carrier charges the other for provision of such measures and incremental, cost-based pricing schemes. In addition, several states have adopted different cost recovery mechanisms. For example, in Florida, carriers have negotiated appropriate rates for currently available measures. The Louisiana PSC has adopted a two-tiered approach to pricing of currently available measures. In the first instance, carriers are permitted to negotiate an appropriate rate. If the parties cannot agree upon a rate, the PSC will determine the appropriate rate that can be charged by the forwarding carrier based on cost studies filed by the carriers. These rates are not required to be set at long-run incremental costs (LRIC) or total service long-run incremental costs (TSLRIC), however.[364]

124. In addition, incumbents and new entrants have voluntarily negotiated a variety of cost recovery methods. Carriers in Rochester, New York, for example, are voluntarily using a formula that allocates the incremental costs of currently available number portability measures, through an annual surcharge assessed by the carrier from which the number is transferred. The charge assessed on each carrier is the product of the total number of forwarded minutes and the incremental per-minute costs of switching and transport, multiplied by the ratio of a particular carrier's forwarded telephone numbers relative to total working numbers in the area. In addition, Rochester Telephone has agreed not to charge competitors for the first $1 million of the cost of number portability.[365] The New York DPS has adopted this formula for the New York Metropolitan area as well.[366] Ameritech and MFS recently entered into an agreement for Ameritech's five-state region under which MFS will pay Ameritech $3 per line per month for interim measures. MFS plans to seek regulatory approval to allocate that cost under a formula that would require MFS to pay a portion of the $3 charge equal to the ratio of MFS's gross telecommunications service revenues, net of its payments to other carriers, to Ameritech's gross telecommunications revenues, net of payments to other carriers.[367]

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[364] Louisiana PSC Regulations for Competition in the Local Telecommunications Market, General Order, Docket No. U-20883, at section 801, Part D (Mar. 15, 1996).

[365] NYNEX Ex Parte Filing, CC Docket No. 95-116, filed Mar. 22, 1996 (NYNEX March 22, 1996 Ex Parte Filing).

[366] NY PSC Order Clarifying March 8, 1995 Number Portability Order, Case No. 94-C-0095, at 3-4 & n.1 (issued and effective Mar. 8, 1995), submitted in NARUC April 17 Ex Parte Filing at vol. 1-A at 32.

[367] Interconnection Agreement under Sections 251 and 252 of the Telecommunications Act of 1996, dated as of May 17, 1996, by and between Ameritech Information Industry Services, a division of Ameritech Services, Inc. on behalf of Ameritech Illinois and MFS Intelenet of Illinois, Inc.; MFS White Paper Number

125. Our cost recovery principles for currently available methods, of course, must comply with the statutory requirements of the 1996 Act. In addition, consistent with the pro-competitive objectives of the 1996 Act, we seek to create incentives for LECs, both incumbents and new entrants, to implement long-term number portability at the earliest possible date, since, as we have noted, long-term number portability is clearly preferable to existing number portability methods. The principles we adopt should also mitigate any anti-competitive effects that may arise if a carrier falsely inflates the cost of currently available number portability.

126. In our interconnection proceeding, we have sought comment on our tentative conclusion that the 1996 Act authorizes us to set pricing principles to ensure that rates for interconnection, unbundled network elements, and collocation are just, reasonable, and nondiscriminatory.[368] We need not, however, reach in this proceeding the issue of whether section 251 generally gives us authority over pricing for interconnection because the statute sets forth the standard for the recovery of number portability costs and grants the Commission the express authority to implement this standard. Specifically, section 251(e)(2) requires that the costs of "number portability be borne by all telecommunications carriers on a competitively neutral basis as determined by the Commission."[369] We therefore conclude that section 251(e)(2) gives us specific authority to prescribe pricing principles that ensure that the costs of number portability are allocated on a "competitively neutral" basis.

127. In exercising our authority under section 251(e)(2), we conclude that we should adopt guidelines that the states must follow in mandating cost recovery mechanisms for currently available number portability methods. To date, the state commissions have adopted different cost recovery methods. We seek to articulate general criteria that conform to the statutory requirements, but give the states some flexibility during this interim period to continue using a variety of approaches that are consistent with the statutory mandate. The states are also free, if they so choose, to require that tariffs for the provision of currently available number portability measures be filed by the carriers.

128. In establishing the standard for number portability cost recovery, section 251(e)(2) sets forth three specific elements, which we must interpret. First, we must determine the meaning of number portability "costs;" second, we must interpret the phrase "all telecommunications carriers;" and third, we must construe the meaning of the phrase "competitively neutral."

Portability Requirements of the Telecommunications Act of 1996, April 30, 1996 (MFS White Paper, 1996).

[368] Interconnection NPRM at ¶ 117.

[369] See 47 U.S.C. § 251(e)(2).

129. The costs of currently available number portability are the incremental costs incurred by a LEC to transfer numbers initially and subsequently forward calls to new service providers using existing RCF, DID, or other comparable measures. According to the record, the costs of RCF differ depending on where the call originates in a carrier's network. Calls that originate on the switch from which a number has been forwarded (intraoffice calls) result in fewer costs than calls that originate from other switches (interoffice calls). This is because fewer transport and switching costs are incurred in the forwarding of an intraoffice call. The BOCs claim, for example, that there are essentially three costs incurred in the provision of RCF for an intraoffice call: (1) switching costs incurred by the original switch in determining that the number is no longer resident; (2) switching costs incurred in performing the RCF translation, which identifies the address of the receiving switch; and (3) switching costs incurred in redirecting the call from the original switch to the switch to which the number has been forwarded.[370] The BOCs further assert that the additional costs incurred for an interoffice call include: (1) the transport costs incurred in directing the call from the tandem or end office to the office from which the number was transferred and back to the tandem or end office; and (2) remote tandem or end office switching costs.[371] There is conflicting evidence in the record on whether these costs are incurred on a per-minute, per-call, or some fixed basis.[372] State commissions in some states have set cost-based rates for currently available number portability measures. In order to do so, states have used different methods of identifying costs, including LRIC, TSLRIC, and direct embedded cost studies. In California and Illinois, the state commissions set cost-based fixed monthly rates for RCF, while in New York and Maryland, the commissions set cost-based rates for minutes of use.[373] In addition, there is some evidence in the record that carriers incur some non-recurring costs in the provision of currently available methods of number portability.[374] Several states, such as California, Illinois, and Maryland, have

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[370] Ameritech Ex Parte Filing at 2, CC Docket No. 95-116, filed Feb. 20, 1996 (Ameritech February 20, 1996 Ex Parte Filing); Bell Atlantic Ex Parte Filing at 1 & 3, CC Docket No. 95-116, filed June 19, 1996 (Bell Atlantic June 19, 1996 Ex Parte Filing); BellSouth Ex Parte Filing, CC Docket No. 95-116, filed Mar. 21, 1996 (BellSouth March 21, 1996 Ex Parte Filing).

[371] Ameritech February 20, 1996 Ex Parte Filing at 2.

[372] See Ameritech Ex Parte Filing at 2-3, CC Docket No. 95-116, filed Mar. 26, 1996 (Ameritech March 26, 1996 Ex Parte Filing); NYNEX March 22, 1996 Ex Parte Filing.

[373] Bell Atlantic March 22, 1996 Ex Parte Filing at 2; NYNEX March 22, 1996 Ex Parte Filing at 1-2.

[374] See Ameritech March 26, 1996 Ex Parte Filing at 2; BellSouth March 21, 1996 Ex Parte Filing at 2; US West Ex Parte Filing at 6, CC Docket No. 95-116, filed June 19, 1996 (US West June 19, 1996 Ex Parte Filing).

permitted the carrier forwarding a number to recover such non-recurring costs as a one-time, non-recurring charge.[375]

130. Section 251(e)(2) of the Communications Act requires that the costs of providing number portability be borne by "all telecommunications carriers."[376] No party commented on the meaning of the term "all telecommunications carriers." Read literally, the statutory language "all telecommunications carriers" would appear to include any provider of telecommunications services. Section 3 of the Communications Act defines telecommunications services to mean "the offering of telecommunications for a fee directly to the public, or to such classes of users as to be effectively available directly to the public, regardless of facilities used."[377] Under this reading, states may require all telecommunications carriers -- including incumbent LECs, new LECs, CMRS providers, and IXCs -- to share the costs incurred in the provision of currently available number portability arrangements. As discussed in greater detail below, states may apportion the incremental costs of currently available measures among relevant carriers by using competitively neutral allocators, such as gross telecommunications revenues, number of lines, or number of active telephone numbers.

131. Section 251(e)(2) of the Act states that the costs of number portability are to be "borne by all telecommunications carriers on a competitively neutral basis as determined by the Commission." We interpret "on a competitively neutral basis" to mean that the cost of number portability borne by each carrier does not affect significantly any carrier's ability to compete with other carriers for customers in the marketplace. Congress mandated the use of number portability so that customers could change carriers with as little difficulty as possible. Our interpretation of "borne . . . on a competitively neutral basis" reflects the belief that Congress's intent should not be thwarted by a cost recovery mechanism that makes it economically infeasible for some carriers to utilize number portability when competing for customers served by other carriers. Ordinarily the Commission follows cost causation principles, under which the purchaser of a service would be required to pay at least the incremental cost incurred in providing that service. With respect to number portability, Congress has directed that we depart from cost causation principles if necessary in order to adopt a "competitively neutral" standard, because number portability is a network function that is required for a carrier to compete with the carrier that is already serving a customer. Depending on the technology used, to price number portability on a cost causative basis could defeat the purpose for which it was mandated. We emphasize, however, that this statutory mandate

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[375] AT&T Ex Parte Presentation at 1, CC Docket No. 95-116 filed Mar. 13, 1996 (AT&T March 13, 1996, Ex Parte Filing).

[376] 47 U.S.C. § 251(e)(2).

[377] 47 U.S.C. § 153(44), (46).